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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
WOLLSCHLAGER, JEFFREY MICHAEL	
ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
05/29/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/826,887	CHAKRABORTY ET AL.	
	Examiner	Art Unit	
	JEFFREY WOLLSCHLAGER	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) *9,11,21,23 and 27* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8,10,12-20,22,24-26 and 28-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/11/08*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 9, 2009 has been entered.

Response to Amendment

Applicant's amendment to the claims filed April 9, 2009 has been entered. Claims 1-3, 28 and 32 are currently amended. Claims 33 and 34 are new. Claims 9, 11, 21, 23 and 27 remain withdrawn from further consideration. Claims 1-8, 19, 12-20, 22, 24-26 and 28-34 are under examination.

Information Disclosure Statement

The information disclosure statement filed November 5, 2008 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, 19, 12-20, 22, 24-26 and 32-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 32 recite "a pressure of 0.2 to 50 tons". The limiting effect of the recitation is unclear. The unit of measure needs an area component in the denominator. In view of the pressures supported by the original disclosure, the recitation is understood to be "a pressure of 0.2 to 50 tons per square centimeter". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 15, 22, 24, 26 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamatomo et al. (JP 2000-167827).

Regarding claims 1, Yamamoto et al. disclose a method of producing polyphenylene ether (PPE) tablets comprising placing unheated PPE powder in a compression mold and subjecting the unheated powder to a pressure of 3 tons/cm^2 with a hydraulic compression machine wherein the pressure is applied to the powder while it is at room temperature/25 °C. (paragraphs [0016; 0023; 0026; and 0027]). The density increases from an initial value of 0.527

g/cc to 0.894 g/cc at 3 tons/cm^2 (paragraphs [0023; 0026; and 0027]). The examiner notes that polyphenylene ether is a specific poly(arylene ether).

As to claim 2, Yamamoto et al. disclose 3 tons/cm^2; a temperature of 25 °C and a compressing time of 10 seconds (paragraphs [0023; 0026; 0027]).

As to claim 4, the density achieved by the compression in comparative example 2 of Yamamoto et al. is 0.894 g/cc, respectively, (paragraph [0025] for units; and paragraphs [0026 and 0027]).

As to claim 15, Yamamoto et al. disclose an unheated mold upon introduction of the powder (paragraph [0026]).

As to claim 22, the compressed powder in tabular form set forth by Yamatomo et al. is understood to be a single phase compact (paragraphs [0026 and 0027]).

As to claim 24, the PPE powder disclosed by Yamatomo et al. has 60% of the particles with a size of less than 100 micrometers.

As to claim 26, Yamatomo et al. employ a confined pressure device (e.g. a mold with a piston and hydraulic compression that allows for an increase in pressure in the mold) (paragraph [0023]).

As to claim 33, Yamatomo et al. employ a resin with an intrinsic viscosity of 0.53 dl/g (paragraph [0023]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1-4, 15-20, 22, 24-26, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827) *Note: citations from Yamatomo et al. JP 2000-302877 are provided from the previously provided English translation.*

Regarding claims 1, Yamatomo et al. '877 teach a method for manufacturing PPE powder with improved particle size distribution comprising introducing powder that is unheated into a compression mold and compression molding the powder at a sufficient pressure to raise the density and at a temperature of 5 – 200 °C. (claim 1; paragraphs [0007, 0008, 0017, 0019, 0022, 0026, 0027]). Yamatomo et al. '877 teach and suggest utilizing pressure, as required, to achieve a density within the recited range of 0.7 - 1.055 g/cc. (paragraphs [0008; 0019]). Further, Yamatomo et al. suggest that the resulting density of the product correlates with the pressure applied in the compression mold (paragraph [0027] examples 1-4; comparative example 5) thereby suggesting that the pressure applied in the compression mold is a result effective variable for controlling density. While Yamatomo et al. '877 teach the compression provides sufficient strength, Yamatomo et al. do not teach what the strength is of the material. Further, Yamatomo et al. '877 do not expressly recite an example wherein the pressure and the temperature are within the claimed range at the same time.

However, Yamatomo et al. ‘827 exemplifies (Comparative example 2) a compression molding process, which produces a molding having a compressive strength of 8.65 kg, wherein a pressure of 3 tons/sq. cm at a temperature within the range set forth by Yamatomo et al. ‘877, 25 °C, is effective to achieve a density within the range desired by Yamatomo et al. ‘877.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. ‘877 and to have employed a compression molding pressure and temperature within the claimed range, as suggested by Yamatomo et al. '827, for example, for the purpose, as suggested by Yamatomo et al. '877, of achieving a molding having a density within the range set forth by Yamatomo et al. '877.

As to claim 2, Yamamoto et al. ‘827 disclose 3 tons/cm2; a temperature of 25 °C and a compressing time of 10 seconds (paragraphs [0023; 0026; 0027]).

As to claim 3, Yamatomo et al. ‘877 teaches employing temperatures within the claimed range and suggests utilizing pressure, as required as a result effective variable, to achieve a density within the disclosed and claimed range (e.g. claim 4). As such, it follows that the same claimed effects and physical properties would implicitly be achieved by the practice of the method.

As to claim 4, Yamatomo et al. ‘877 teach a density within the range of 0.7 – 1.055 g/cc.

As to claims 15-20, Yamamoto et al. ‘827 disclose an unheated mold upon introduction of the powder (paragraph [0026]). Further, Yamatomo et al. ‘877 teach a range from 5-200 °C is suitable and preferably employ a heated mold during the compression molding (paragraph [0022]). The examiner notes that the sequence of performing the steps is *prima facie* obvious absent a showing of new or unexpected results.

As to claim 22, the compressed powder in tabular form set forth by Yamatomo et al. is understood to be a single phase compact (paragraphs [0026 and 0027]).

As to claim 24, the PPE powder disclosed by Yamatomo et al. has 60% of the particles with a size of less than 100 micrometers.

As to claim 33, Yamatomo et al. '877 exemplify a resin with an intrinsic viscosity of 0.53 dl/gm (paragraph [0026])

As to claims 25 and 34, Yamatomo et al. '877 disclose the particle size distribution of the particles, thereby suggesting an average within the claimed range (paragraph [0026]).

As to claim 26, Yamatomo et al. employ a confined pressure device (e.g. a mold with a piston and hydraulic compression that allows for an increase in pressure in the mold) (paragraph [0023]).

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827), as applied to claims 1-4, 15-20, 22, 24-26, 33 and 34, above, and further in view of Modern Plastics Handbook, edited by Charles A. Harper, Knovel release date: November 20, 2002.

As to claims 5 and 6, Yamamoto et al. do not expressly teach applying the pressure for 300 to 2000 seconds. However, Modern Plastics Handbook discloses that the overall cycle times required for compression molding is determined based upon the molding material, the thickness/size of the part to be produced and the mold temperature (6.2.3, last full paragraph).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Yamamoto et al. and Modern Plastics Handbook and to have optimized the required compression cycle time, including to

times set forth in the claim, in order to achieve a compression molded product having the required density and size.

As to claim 6, Yamamoto et al. employ the same claimed starting material and disclose densities as high as 1.055 g/cc. Further, the combination set forth above suggests the same claimed process steps performed in the same claimed manner. Accordingly, the same claimed effects and physical properties (e.g. compressive strength) would intrinsically be achieved by the practice of the combined method.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827), and Modern Plastics Handbook, edited by Charles A. Harper, Knovel release date: November 20, 2002, as applied to claims 5 and 6 above, and further in view of Weiss et al. (US 5,294,667).

As to claim 7, the combination teaches the method set forth above. Yamamoto et al. do not expressly state the material is processed to remove or reduce gas trapped between the particles. However, Weiss et al. teach that compaction/compression molding of polyphenylene ether removes the air contained in the interstices of the loose powder which in turn reduces the proportion of fines and the risk of dust explosions (col. 2, lines 55-67).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have combined the teaching of Yamamoto et al. and Weiss et al. and to have removed entrained air from the interstices of the loose powder in the method of Yamamoto et al. since Weiss et al. teach that compaction/compression molding intrinsically performs this function and the result is a product that has reduced fines and reduced risk of dust explosions.

Claim 8, 10, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827), as applied to claims 1-4, 15-20, 22, 24-26, 33 and 34 above, and further in view of Gijzen (US 6,359,043).

As to claims 8, 10 and 12-14, the combination teaches the method set forth above. Yamatomo et al. '877 do not teach employing additives and/or binders as claimed. However, Gijzen teach that adding various additives and binders such as polystyrene resin enhance the properties of PPE (col. 1, lines 35-40; col. 3, lines 25-30).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. and to have employed additives and binders, as suggested by Gijzen, for the purpose of enhancing the properties of the product.

Claims 28, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827) and Gijzen (US 6,359,043). *Note: citations from Yamatomo et al. JP 2000-302877 are provided from the previously provided English translation*

Regarding claim 28, Yamatomo et al. '877 teach a method for manufacturing PPE powder with improved particle size distribution comprising introducing powder that is unheated into a compression mold and compression molding the powder at a sufficient pressure to raise the density and at a temperature of 5 – 200 °C. (claim 1; paragraphs [0007, 0008, 0017, 0019, 0022, 0026, 0027]). Yamatomo et al. '877 teach and suggest utilizing pressure, as required, to achieve a density within the recited range of 0.7 - 1.055 g/cc. (paragraphs [0008; 0019]). Further, Yamatomo et al. suggest that the resulting density of the product correlates with the pressure applied in the compression mold (paragraph [0027] examples 1-4; comparative

example 5) thereby suggesting that the pressure applied in the compression mold is a result effective variable for controlling density. While Yamatomo et al. '877 teach the compression provides sufficient strength, Yamatomo et al. do not teach what the strength is of the material. Further, Yamatomo et al. '877 do not recite employment of a binder.

However, Yamatomo et al. '827 exemplifies (Comparative example 2) a compression molding process, which produces a molding having a compressive strength of 8.65 kg, wherein a pressure of 3 tons/sq. cm at a temperature within the range set forth by Yamatomo et al. '877, 25 °C, is effective to achieve a density within the range desired by Yamatomo et al. '877.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. '877 and to have employed a compression molding pressure and temperature within the claimed range, as suggested by Yamatomo et al. '827, for example, for the purpose, as suggested by Yamatomo et al. '877, of achieving a molding having a density within the range set forth by Yamatomo et al. '877.

Additionally, Gijzen teach that adding a binder such as polystyrene resin enhances the properties of PPE (col. 3, lines 25-30; Example).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. and to have employed a binder, such as polystyrene resin, as suggested by Gijzen, for the purpose of enhancing the properties of the product.

With regards to claim 28, the "consisting essentially of" language in the claims is noted. The transitional phrase "consists essentially of" limits the scope of the claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristics" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976). For

search and examination purposed, absent a clear indication in the specification of what the basic and novel characteristics actually are, "consists essentially of" will be construed as equivalent to "comprising." When an applicant contends that additional steps or materials in the prior art are excluded by the recitation "consists essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also Ex parte Hoffman, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989). Because no evidence has been set forth on the record to show that the use of additives besides polystyrene resin employed by Gijzen would materially affect the basic and novel characteristics of the instantly claimed invention, its use is considered to fall within the scope of the instant claim.

As to claim 29, the polystyrene resin of Gijzen is heated, as part of its polymerization, prior to blending with the powder (col. 2, lines 60-65).

As to claim 31, the PPE powder disclosed by Yamatomo et al. has 60% of the particles with a size of less than 100 micrometers (paragraph [0026]).

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamatomo et al. (JP 2000-302877) in view of Yamamoto et al. (JP 2000-167827) and Gijzen (US 6,359,043). *Note: citations from Yamatomo et al. JP 2000-302877 are provided from the previously provided English translation*

Regarding claim 32, Yamatomo et al. '877 teach a method for manufacturing PPE powder with improved particle size distribution comprising introducing powder that is unheated into a compression mold and compression molding the powder at a sufficient pressure to raise the density and at a temperature of 5 – 200 °C. (claim 1; paragraphs [0007, 0008, 0017, 0019,

0022, 0026, 0027]). Yamatomo et al. '877 teach and suggest utilizing pressure, as required, to achieve a density within the recited range of 0.7 - 1.055 g/cc. (paragraphs [0008; 0019]). Further, Yamatomo et al. suggest that the resulting density of the product correlates with the pressure applied in the compression mold (paragraph [0027] examples 1-4; comparative example 5) thereby suggesting that the pressure applied in the compression mold is a result effective variable for controlling density. While Yamatomo et al. '877 teach the compression provides sufficient strength, Yamatomo et al. do not teach what the strength is of the material. Further, Yamatomo et al. '877 do not expressly recite an example wherein the pressure and the temperature are within the claimed range at the same time.

However, Yamatomo et al. '827 exemplifies (Comparative example 2) a compression molding process, which produces a molding having a compressive strength of 8.65 kg, wherein a pressure of 3 tons/sq. cm at a temperature within the range set forth by Yamatomo et al. '877, 25 °C, is effective to achieve a density within the range desired by Yamatomo et al. '877.

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. '877 and to have employed a compression molding pressure and temperature within the claimed range, as suggested by Yamatomo et al. '827, for example, for the purpose, as suggested by Yamatomo et al. '877, of achieving a molding having a density within the range set forth by Yamatomo et al. '877.

Further, while Yamatomo et al. teach a wide range of molecular weights may be employed they do not expressly recite the claimed intrinsic viscosity.

However Further, Gijzen teaches a method comprising PPE within the claimed intrinsic viscosity range and that the intrinsic viscosity of PPE is chosen depending on the properties required in the product (col. 2, lines 51-59).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Yamatomo et al. '877 and to have employed a PPE within the claimed intrinsic viscosity range, as suggested by Gijzen, since Gijzen teaches that such PPE's are conventional in the art and that the intrinsic viscosity of PPE to be employed is chosen as a function of the desired physical properties of the product (i.e. intrinsic viscosity is a result effective variable).

Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761).

Regarding claim 28, Fox teaches a method for forming melt processable polyphenylene ether (PPE) wherein polyphenylene ether powder and a liquid polymerizable material, such as styrene, (Example 1) are mixed together and compacted between two sheets of material (col. 4, lines 1-30) or cold-pressed (col. 5, lines 45-55) or press-cured at a temperature below the glass transition temperature of polyphenylene ether (col. 5, lines 35-43). The examiner submits all of these are reasonably understood to be compaction equipment comprising a compression mold as set forth in the instant disclosure. The liquid polymerizable material is a binder for the polyphenylene powder. Further, the examiner notes that the glass transition temperature of PPE is greater than 200 °C. Additionally, intrinsic to the compression operation is an increase in density of the article produced relative to the starting powder. The examiner notes that Fox does not specifically recite the compressive strength of the compression molded material, but Fox does provide information on the modulus and tensile strength of films and fibers produced by the method and these values suggest strength properties substantially above the recited value of 5 kg. Further, Fox teaches compressing the material as required to achieve the required thickness (Example 4).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Fox, and to have employed a pressure sufficient to achieve the recited compressive strength of 5 kg for the purpose of producing a film or fiber having the required strength properties and desired thickness.

As to claim 30, Fox teaches the liquid binder can be heated/devolatized prior to the mixture being press cured (col. 5, lines 35-42) and also teach the mixture may be dissolved in a common solvent and evaporated (col. 3, lines 21-24) to form the material that will ultimately be processed.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761), as applied to claim 28 above and further in view of Nitzsche et al. (US 2002/0198123).

As to claim 29, Fox teaches the method set forth above. Fox does not teach the claimed heating sequence. However, Nitzsche et al. teach a method of forming a composition that includes fillers, wax binders, foaming agents and liquids that are heated and then pelletized to form a composition that is subsequently blended with a thermoplastic resin (paragraphs [0014-0017 and 0029-0031]).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Fox and to have heated the binder prior to blending with the thermoplastic resin, as suggested by Nitzsche et al., for the purpose of effectively incorporating additives into the composition of Fox.

Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fox (US 3,356,761), as applied to claims 28 and 30 above, and further in view of Yamamoto et al. (JP 2000-167827).

As to claim 31, Fox teach the method of claim 28 as set forth above. Fox does not teach that the powder comprises about 5 to about 70 percent of particles having a particle size less than 100 micrometers. However, Yamamoto et al. teach a compression molding process wherein 60 percent of the particles have a size of less than 100 micrometers (paragraph [0023]).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed the PPE disclosed by Yamamoto et al. in the method of Fox since Yamamoto et al. teach such a PPE is suitable for analogous compression molding applications.

Response to Arguments

Applicant's arguments filed April 9, 2009 have been fully considered. The rejections based upon Yamatomo et al. (JP 2000-167827) as a primary reference as set forth in the previous office action have been withdrawn in view of the amendment to the claims. However, the examiner notes that applicant's amendment to the claims has necessitated a new section 102 rejection over Yamatomo et al. '827 for some of the claims as set forth above.

Applicant's arguments against the Yamatomo et al. '877 reference and against the combination of Yamatomo '877 and Yamatomo et al. '827 have been fully considered, but they are not persuasive. Applicant argues that Yamatomo et al. '877 do not teach the claimed pressure and temperature combination set forth in the claims. As set forth in the rejection above, the examiner submits that Yamatomo et al. '877 suggest that compression molding

pressure is a result effective variable for achieving their desired density. From this starting point, the examiner maintains that the teaching of Yamatomo et al. '827 is pertinent in that it exemplifies that at a temperature of 25 °C (within the temperature range set forth by Yamatomo et al. '877) a pressure of 3 tons/sq. cm is effective to achieve a molding having a density within the desired range of Yamatomo et al. '877. Accordingly, the examiner maintains the combination reasonably suggests the claimed invention even in view of whatever ultimate differences may exist regarding the purposes of each of the inventions of Yamatomo et al.

Applicant's arguments against the Fox reference have been fully considered, but they are not persuasive. Applicant argues that Fox only disclose elevated compressing temperatures. This argument is not persuasive. The examiner notes that Fox discloses cold pressing (col. 5, lines 45-50) and further suggest low temperature may be employed (col. 4, lines 35-36). The examiner submits that within the context of Fox, "cold pressed" is reasonably understood to suggest a temperature within the claimed range.

Applicant's arguments against the secondary references have been fully considered, but they are not persuasive. Applicant argues that the references do not make up for the deficiencies of Yamatomo et al. or Fox. These arguments are not persuasive, because the examiner maintains that the primary references of Yamatomo et al. and Fox are not deficient as argued.

The examiner notes there is a new grounds of rejection set forth in this office action. Further, the prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hanejko et al. (US 6,534,564).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Wollschlager/
Examiner, Art Unit 1791

May 27, 2009